



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,064	10/19/2001	Scott G. Adams	32480/3	2139

26155 7590 09/16/2003

SHEARMAN & STERLING
INTELLECTUAL PROPERTY DOCKETING
599 LEXINGTON AVENUE
NEW YORK, NY 10022

EXAMINER

KWOK, HELEN C

ART UNIT PAPER NUMBER

2856

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,064

Applicant(s)

ADAMS ET AL.

Examiner

Helen C. Kwok

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-66 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 and 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2856

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, the phrase "the silicon structure" lacks antecedent basis. In line 18, the phrase "the electrodes" is vague. Which electrodes?

In claim 2, line 8, the phrase "the two electrodes" lacks antecedent basis. It appears that it should be -- the fixed and movable electrodes --.

In claim 6, line 1, the phrase "the silicon structural member" lacks antecedent basis.

In claim 15, line 2, the phrase "the silicon wafer" lacks antecedent basis.

In claim 18, line 8, the phrase "the two electrodes" lacks antecedent basis. It appears that it should be -- the fixed and movable electrodes --.

Art Unit: 2856

In claim 22, line 6, the phrase “the two portions” lacks antecedent basis. It appears that is should be -- the fixed and movable portion --.

In claim 28, line 3, the phrase “the silicon” lacks antecedent basis.

In claim 34, lines 10-11, the phrase “the two electrodes” lacks antecedent basis. It appears that is should be -- the fixed and movable electrodes --.

In claim 36, line 2, the phrase “the predominant structural members” lacks antecedent basis.

In claim 38, lines 5-6, the phrase “the two portions” lacks antecedent basis. It appears that is should be -- the fixed and movable portions --. In line 11, the phrase “the first and second electrodes” lacks antecedent basis.

In claim 39, 2, the phrase “the movable electrode” lacks antecedent basis. In line 3, the phrase “the movable and third electrodes” lacks antecedent basis. In line 3, the phrase “the fixed electrode” lacks antecedent basis. In line 4, the phrase “the fixed electrode” lacks antecedent basis. In line 5, the phrase “the electrodes” is vague.

In claim 40, line 2, the phrase “the silicon structure” lacks antecedent basis.

In claim 41, line 2, the phrase “a silicon” should be changed to -- the silicon --.

In claim 48, line 9, the phrase “the two electrodes” lacks antecedent basis. It appears that is should be -- the fixed and movable electrodes --.

In claim 49, the phrase “the concentrated mass” lacks antecedent basis.

Art Unit: 2856

In claim 50, line 2, the phrase “the first electrode and second electrode” lacks antecedent basis.

In claim 51, line 2, the phrase “the first electrode and the second electrode” lacks antecedent basis.

In claim 52, lines 8-9, the phrase “the electrodes” is vague.

In claim 54, line 2, the phrase “the silicon” lacks antecedent basis.

In claim 56, line 3, the phrase “the silicon” lacks antecedent basis.

In claim 60, line 9, the phrase “the electrodes” is vague. In line 11, the phrase “the electrodes” is vague.

In claim 63, line 3, the phrase “the silicon” lacks antecedent basis. It appears that this claim should be depended on claim 62.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-66 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,084,257 (Petersen et al.).

Art Unit: 2856

Petersen et al. discloses a single crystal silicon acceleration sensor comprising, as illustrated in Figures 1-8, a monocrystalline silicon wafer etched to form a fixed portion, a movable portion and a resilient coupling between the fixed and movable portions arranged in the plane of the wafer; first, second and third electrodes coplanar with one another; electronics designed to translate a measurement of capacitance between the first and third electrodes into a measurement of acceleration along the axis. (See, column 3, lines 9-61).

With regards to claims 2-3, the claim is commensurate in scope with claim 1 and is rejected for the same reasons as set forth above.

With regards to claims 4-17, Petersen et al. further suggests the fixed structure, movable structure are formed of high aspect ratio beams (column 4, lines 19-23); electrodes formed of silicon and electrically conductive layer; various structures of the movable and fixed structures are electrically isolated from each other.

With regards to claims 18-66, the claims are commensurate in scope with claims 1-17 and are rejected for the same reasons as set forth above.


Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references cited are related to acceleration sensor having a plurality fixed electrode fingers interdigitated with a plurality of movable electrode fingers.

Art Unit: 2856

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen Kwok whose telephone number is (703) 308-8149.


Helen C. Kwok
Art Unit 2856

hck
September 5, 2003